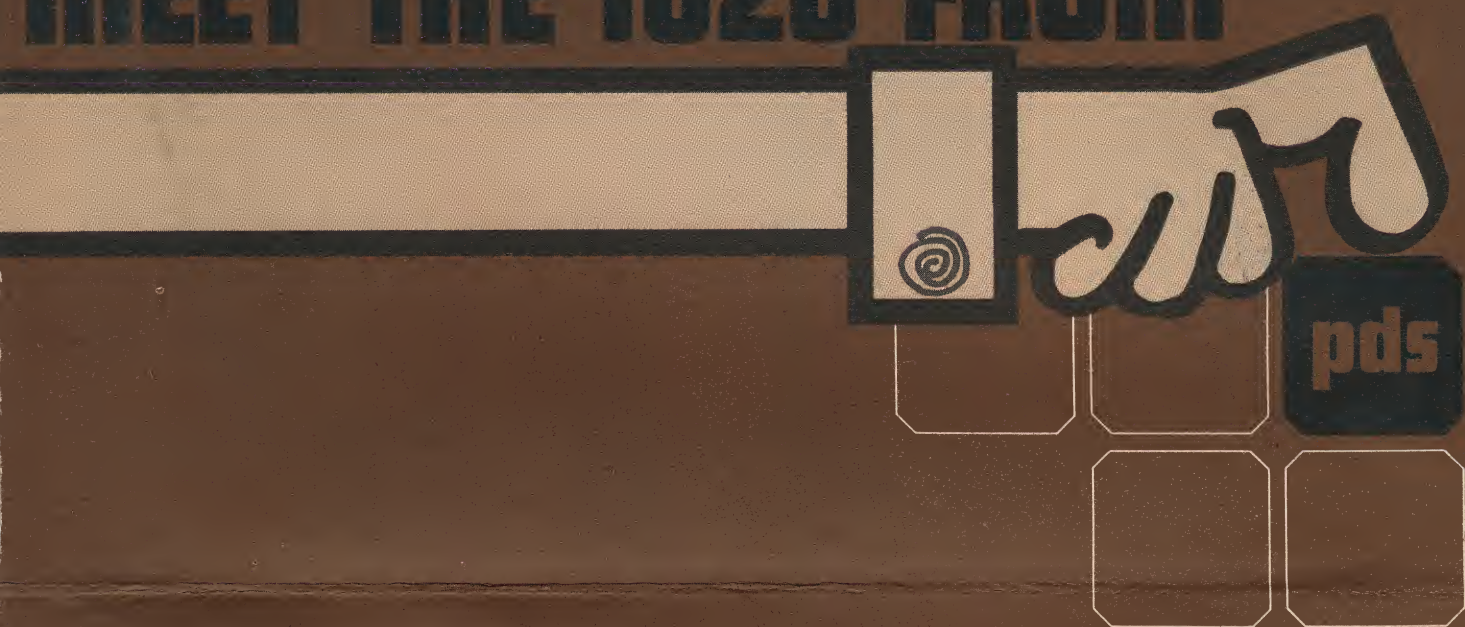


# MEET THE 1020 FROM



The one computer that puts fast answers at any engineer's fingertips, in his terms, for as little as \$2.59 an hour.

The world's easiest computer  
—a creative engineering tool  
from Pacific Data Systems, Inc.



# The PDS 1020 Computer is a new, flexible engineering tool that makes money, saves money. It's the world's easiest computer.

The PDS 1020 fills the gap in performance between the simple desk calculator and the ultra-sophisticated computer center. It directly attacks the steadily growing mathematics load—tedious routine arithmetic calculations—so common and necessary in all engineering work. And it does its job in true “shirt sleeves” fashion working right with the engineer—no fancy, confusing installation; no costly, time-consuming programming specialists needed.

## 1. Solves wide range of

**problems.** With the PDS 1020, your engineer can get immediate, accurate solutions to his problems. The PDS 1020 is already at work in many engineering disciplines:

Mechanical ■ Electrical ■ Chemical  
■ Petroleum ■ Mining ■ Industrial ■  
Aerospace ■ Metallurgical ■ Safety  
■ Marine ■ Geological ■ Civil

## 2. Increases profits through improved analysis.

The computer's high speed lets the engineer personally investigate a far greater number of design alternatives than would be possible by conventional calculating methods. He can choose the best solution to an engineering problem (by engineering and cost standards) rather than just the first.

## 3. Starts to earn the day you get it.

Anyone—the engineer, or any member of his staff—can operate the PDS 1020 without prior computer experience. It's the world's easiest computer. Training time is a matter of hours, not days or weeks. The PDS 1020 uses familiar engineering terms, not artificial computer language. Results are printed out in the same, easy-to-read engineering terms.

**4. Works anywhere.** The PDS 1020 is the size of a small office desk. It's on wheels, and can be moved easily—even to on-site field locations—to save vital engineering hours. Electrical requirements are simple: a standard 115V AC wall



plug. And, you don't need to baby the PDS 1020; rugged solid state circuitry lets it withstand normal bumps and knocks.

## 5. Saves costly engineering

**time.** With a PDS 1020, expensive engineers no longer waste time on tedious arithmetic. Routine calculations are handled in seconds. In fact, the PDS 1020 provides answers to your problems much faster than many of the largest computers. Your engineer can put the PDS 1020 to work on his problem without costly priority, scheduling and programming delays. The “extra” engineering man hours saved by the computer can be used to investigate new design techniques.

## 6. Eliminates arithmetic errors.

The PDS 1020 never gets tired of doing arithmetic. Humans do. The computer thrives on repetitive routine calculations—it actually grows progressively more efficient. And, its accuracy virtually eliminates costly re-checking and re-working of computations.

## 7. Calculates faster, saves

**dollars.** The PDS 1020 will solve problems in seconds... problems an engineer might need hours to solve by normal techniques. The computer does the normally slow, costly and error-producing figure work; the engineers do the thinking. You get

more answers per unit of time from the same staff.

## 8. Organizes the problem.

Too often, lack of an organized approach results in solution of the wrong problem. The PDS 1020 keeps a record of solution steps for re-analysis at any time. This helps the engineer to develop solutions as a series of logical steps—which can be checked and monitored by other engineers.

## 9. Cuts costs with re-usable

**solutions.** The PDS 1020 doesn't forget. Any problem solution can be rerun by other engineers for similar problems. Solution time is cut to the bone. Day by day, the problem solutions developed by your engineering staff on the PDS 1020 accumulate into a well-documented file, protecting your engineering investment and proprietary position.

## 10. Multiplies engineering staff.

The PDS 1020 allows your present staff to tackle problems of a magnitude never possible previously. Entire new areas of engineering effort become feasible—without adding to your staff.

Everything about the PDS 1020 is common-sense and practical...right down the alley of the working engineer. It's the world's easiest computer. The following description of its components shows you why.



## The keyboard speaks plain engineering...

The plain terms on the keys of the PDS 1020 tell a story of practical usage as an engineering tool. No special programmers, computer operators, or fancy machine language... just the engineer with the world's easiest computer at his fingertips.

## The pricetag speaks real economy!

The PDS 1020 costs \$2.59 an hour (based on a five-year lease and a 176-hour month)... less than 1/2 the cost of another engineer!



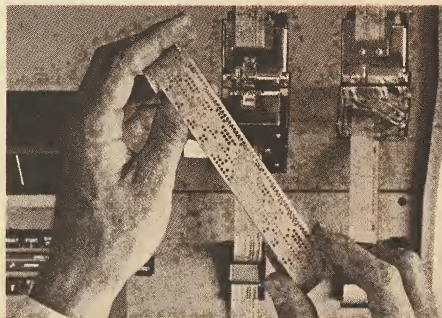
## This tape keeps a permanent record of your instructions...

This is simply a set of instructions telling the computer what you want it to do. It's like an algebraic formula

numbers or data are entered, your instructions lead the computer into providing the solution. On the PDS 1020, problem solving tapes are recorded automatically and permanently.

## This tape feeds your instructions to the machine...

The lengthy engineering formulas you use repeatedly are recorded on

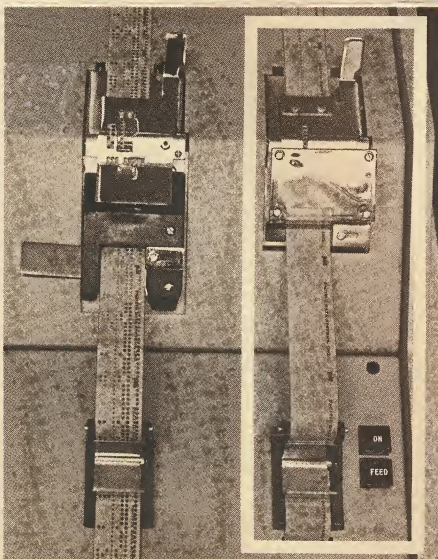


paper tape. When needed, they are fed into the machine's tape "reader." You can then solve for a single set of values. Or, command repeat solu-

tions for changing values. This way you can plot or graph the most complex equations.

## Solutions are printed in engineering terms...

Solutions are typed out clearly and legibly on paper in the same language and units you started with. A permanent, written record of your instructions is printed out automatically at your command.



—showing in sequence the operations you want performed. When





# The PDS 1020 grows with your requirements...

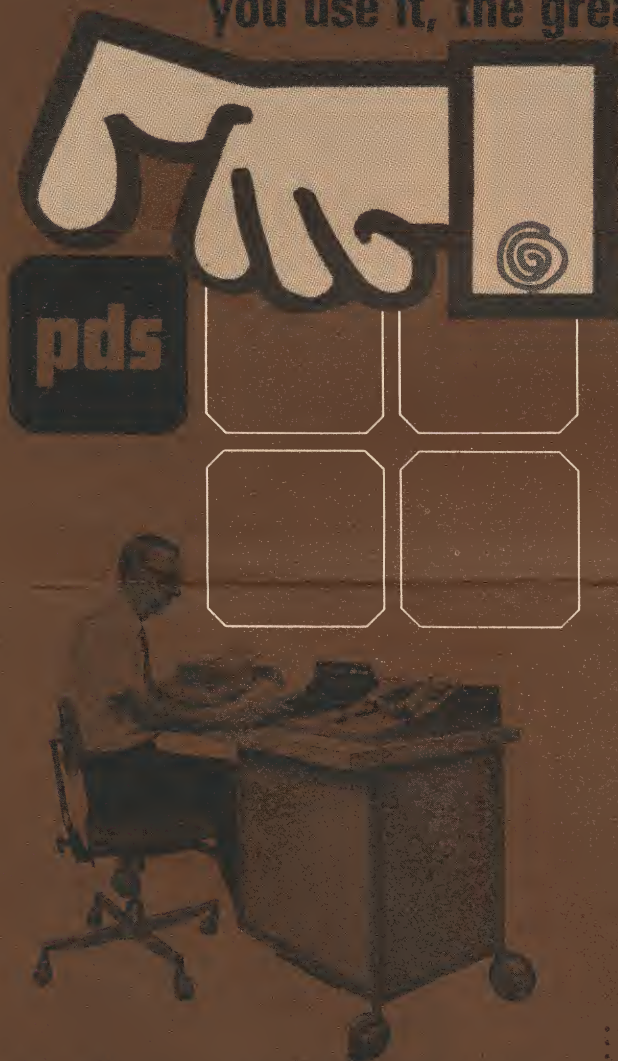
While the 1020 is designed to go right to work on your everyday engineering problems, it is also capable of much more. Any engineer can learn more advanced ways of using the PDS 1020 if he wishes. Many of the following calculations are being done on the PDS 1020 now:

■ Partial differential equations  
■ Fluid flow problems ■ Vibration

analysis ■ Thermodynamics & heat transfer ■ Structures ■ Structural dynamics ■ Flight mechanics ■ Communications ■ Analytical chemistry ■ Geochemistry ■ Geophysics ■ Oceanography ■ Meteorology ■ Metallurgy ■ Network analysis ■ Physical chemistry ■ Blending & mixing ■ Optics ■ Mathematics ■ Paper and metal products ■ Quality control ■ Cost

analysis ■ Work measurement ■ Methods planning ■ Materials handling ■ Machine design ■ Plant engineering ■ Filter design ■ Gear design ■ Valve design ■ Spring design ■ Transformer design ■ Transducer design ■ Flash point calculations ■ Electronics ■ Circuit design ■ Magnetics ■ Transfer function analysis ■ Curve fitting ■ Roots of equations ■ Statistical analyses

**The value of the PDS 1020 grows as you use it. The more you use it, the greater savings and efficiencies it provides.**



You will more than likely want a more thorough explanation of the specific application of the PDS 1020 to your problems. Why not call or write us right away?

## **PACIFIC DATA SYSTEMS, INC.**

A subsidiary of Electronic Associates, Inc.

1058 East First Street, Santa Ana, California

Telephone: (714) 547-4135

☐ Please have your representative call:

Telephone (    ) \_\_\_\_\_ Ext. \_\_\_\_\_

My primary job responsibility is:

☐ Engineer   ☐ Engineering Mgt.   ☐ Gen. Mgt.   ☐ Other \_\_\_\_\_

☐ Please add my name to your mailing list.

☐ My address is correct as shown   ☐ Please correct to:

Mr. T. H. Nelson  
Systems Consultant  
Box 1546  
Poughkeepsie, New York 12603

Signature \_\_\_\_\_ Date \_\_\_\_\_

My company's major products/services are:

We have (No.) \_\_\_\_\_ engineers at this location.

Our possible computer application is for:

We presently handle such problems by:

☐ Calculator   ☐ Slide rule   ☐ Hand arithmetic   ☐ Other \_\_\_\_\_

☐ Small computer in department. Type? \_\_\_\_\_

☐ Large computer installation. Type? \_\_\_\_\_

☐ Outside computer service. Type? \_\_\_\_\_ Other \_\_\_\_\_

We are considering the use of a computer:

☐ Now   ☐ Within a year   ☐ Sometime in the future

We are a:

☐ R&D lab   ☐ Educational institution

☐ Manufacturer   ☐ Rep/Jobber/Dealer

☐ Gov't agency   ☐ \_\_\_\_\_

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pds

**PACIFIC DATA SYSTEMS, INC.**  
A SUBSIDIARY OF ELECTRONIC ASSOCIATES, INC.

Gentlemen:

The PDS 1020 is a general purpose digital computer that is being used effectively by a large number of firms and institutions throughout the world. Users include small engineering firms, large corporations, colleges, universities and government agencies.

The 1020 is being used to solve problems ranging from repetitive engineering calculations to scientific problems that can only be solved with the use of a general purpose computer.

We have continued to prove that users can learn to operate the 1020 after a few hours of instruction. This means that the computing power of the 1020 is directly accessible to the engineer and scientist . . . he solves his problems quickly and efficiently.

The enclosed brochure illustrates the many advantages of the 1020. In order to truly appreciate its computational capability and operational simplicity, a demonstration is necessary. If you would like to see and operate the PDS 1020 in your office, or want more information, please return the enclosed card.

Very truly yours,

PACIFIC DATA SYSTEMS, INC.



Ted Lessley  
Marketing Manager

TL:lm  
encl.